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Interim Guidelines for
• Funeral Directors

Workplace Prevention and Management of
Acquired Immunodeficiency Syndrome (AIDS)
and Human Immunodeficiency Virus Infections (HIV)

Manitoba
Health

PREFACE

The purpose of this series of infection control guidelines is to provide information on measures which should be taken to prevent the transmission of AIDS virus (HIV) infection in the community, in institutions and in other workplaces.

AIDS virus (HIV) infection is transmitted by the exchange of blood and/or body fluids; it is basically a sexually transmitted infection and modification of sexual practices is the single most important method of preventing infection.

In the workplace, handwashing and caution in the use and disposal of needles are the most important infection control procedures.

Most persons with AIDS virus (HIV) infection are asymptomatic and many are not aware that they are infected. For this reason, appropriate precautions must be taken for all persons at risk of being infected. In most situations the following guidelines are applicable to all persons - whether they are identified as being infected or not.

The titles available under the series of Workplace Prevention and Management of Acquired Immunodeficiency Syndrome (AIDS) and Human Immunodeficiency Virus Infections (HIV) are:

Guidelines for hospitals, laboratories, and pathologists
Guidelines for funeral directors
Guidelines for home care providers, and long term facilities
Guidelines for providers of prehospital emergency care and resuscitation training
Guidelines for dentistry
Guidelines for correctional and detentional facilities
Guidelines for schools and daycare centres
Guidelines for personal service workers.

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WORKSHOP PARTICIPANTS

Marjorie Adrian
Yvonne Anderson
Margaret Barbour
G. Black
John Bucltan
Lucille Chay
Margaret Day
Dave Edwa.·ds
John French
Charisse Gaske
Shirley Harder
Carmelita Howells
S. Izatt
Eleanor Jobin
Dale Kinniburgh
Jacqueline Laurendeau
Jessie Little
Winnifred Lund
Doug McGiffin
Richard Nordrum
Cheryl Pragnell
S. Sanders
Joyce Smyth
Linda Turner
Sandra Webb
Ronda Yuzark

Roberta Alcorn
Chris Ansons
Cordell Barker
Esme Boone
Mariann Burka
Eileen Christiansen
Doug Delmarque
Eleanor Feher
Ruth Funk
Jane Gauthier
Jim Horn
Alice Inniss
Beverley Jasperson
Martin Johnson
Rowena Kominko
Phyllis Law
Dennis Lloyd
Annette Maloney
Belle Meiklejohn
Dennis Phillips
Shelly Praznik
Mary Beth Shields
Genevieve Thompson
Alice Unger
Ken Wladyka

Shelley Allard
Carole Ash
Olivier Beaudette
Isabelle Brunel
Wayne Byron
Dorothy Creek
Eileen Dyck
Judith Fraser
Diane Gantzel
Carrie Grahame
Donna Hourd
Geraldine Irvine
J. Joba
Beverley Johnson
M. Lasko
Barbara Little
Marg Loucks
Bonnie Mazerolle
S. Moore
Marie Poole
Helen Rempel
Myrla Smederovac
Vlieta Thomson
Angelo Vitucci
Darline Wolfreys

The Infection Control Subcommittee of the Manitoba Advisory Committee on Infectious Diseases (MACID) has also contributed to the review of these guidelines and members have provided valuable input.

MEMBERS OF INFECTION CONTROL SUBCOMMITTEE OF MACID

Dr. M. Fast
Dr. G. Harding
Ms. P. Kinrade
Ms. D. Phippen
Dr. B. Law
Ms. N. McFarlane
Ms. L. Klass

In addition, valuable suggestions were made by Dr. P. Cooney, Executive Director Manitoba Health Dental Services, Dr. P. Markesteyn, Chief Medical Examiner, Dr. G. Hammond, Director Cadham Provincial Laboratory and Chairman of the AIDS Subcommittee of MACID, Dr. C. Merry, Medical Director of Hematology at Health Sciences Centre, and Dr. R. Robertson, Medical Director Corrections.

As the bibliography indicates, Canada Diseases Weekly Report (CDWR) and Morbidity Mortality Weekly Report (MMWR) recommendations are the basis for many of these guidelines.

M.V. Fast, M.D.
Director
Communicable Disease Control

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INTRODUCTION TO AIDS AND AIDS VIRUS (HIV) INFECTION

DEFINITION

Acquired Immunodeficiency Syndrome (AIDS) is a breakdown of the body's immune system - its natural defense against disease. Without this protection, a person is vulnerable to illnesses which a healthy immune system can prevent.

A person with AIDS fights an ongoing battle against many illnesses. Rare forms of pneumonia, skin cancer or brain infection may occur and are eventually fatal.

CAUSE

AIDS is caused by a virus - commonly called the Human Immunodeficiency Virus (HIV) - which attacks the body's immune system. Infection with this virus does not always lead to AIDS. Infected persons may have a mild illness or none at all. As yet, it is not known why some people become ill and others do not. The amount of virus, as well as infection by other viruses, may influence the development of AIDS.

SYMPTOMS

At present, the vast majority of persons with an AIDS virus (HIV) infection (approximately 70%) may feel completely well and have no symptoms. Some infected persons (approximately 25%) have some of the following symptoms: swelling of glands in the neck, armpits and groin, a thick white coating on the tongue, unexplained weight loss, persistent diarrhea, a harsh dry cough, tiredness, fever, or night sweats. These symptoms may be referred to as AIDS-related conditions (ARC). Only about five percent of persons presently infected with the AIDS virus (HIV) have the actual syndrome known as AIDS.

TRANSMISSION (Spread)

How the Virus is Spread

- The AIDS virus (HIV) has been shown to be spread from an infected person to an uninfected person in the following ways:
  - through sexual contact (penis/vagina, penis/rectum, mouth/rectum, mouth/genital)
  - through sharing needles used in injecting drugs,
  - through transfusion or injection of infectious blood or blood products; to help prevent this type of spread, all blood donations in Canada are now screened for evidence of AIDS virus (HIV) infection,
  - from an infected woman to her fetus or newly born baby.

- An individual can be infected with the virus that causes AIDS without having symptoms of AIDS or appearing ill. Infected individuals without symptoms can transmit the infection to others. Once infected, a person is presumed infected for life, but actual symptoms may not develop for many years.

- A single exposure to the AIDS virus (HIV) may result in infection.

How the Virus is NOT Spread

- There is no evidence that the virus is spread through casual social contact such as shaking hands, social kissing, coughing, sneezing, sharing swimming pools, bed linens, eating utensils, office equipment, or being next to or served by an infected person. There is no reason to avoid this type of contact with an infected person.

- It is not spread by the process of giving blood; new transfusion equipment is used for each donor.

- It is not spread by sexual intercourse between uninfected individuals who have maintained an exclusive sexual relationship.

RISK ACTIVITIES

1. Sexual activity with a number of different partners, particularly if they are anonymous.
2. Anal intercourse
3. Intravenous drug abuse.

GROUPS AT RISK

1. Homosexual and bisexual men
2. Intravenous drug abusers
3. Recipients of multiple blood or blood product transfusions prior to 1986
4. Children born to mothers infected with the AIDS virus (HIV)
5. Persons with multiple sex partners.
6. People who are sexually active with individuals who are or may be infected.

AIDS AND AIDS VIRUS (HIV) TESTING

At the present time, blood can routinely be tested only for signs of the virus. These signs are special blood components called antibodies which form in response to the virus. The blood test is available only at the request of a physician and should only be done after appropriate counselling has taken place.

Positive Antibody Test

If antibodies to the AIDS virus (HIV) are found in the blood, it means the person has been infected with this virus at some time. A positive test result does **NOT** mean that a person has AIDS or will get AIDS at some time in the future. It does **NOT** mean the person is immune to (protected from) the virus. It **DOES** indicate that the person has been exposed to the virus, is assumed to carry the virus and could spread it to others.

Negative Antibody Test

A negative test usually means that the person has not been infected with the AIDS virus (HIV).

TREATMENT

At this time there is no treatment which can repair the breakdown of the body's immune system. Treatments are available for many of the illnesses which develop because of the weakened immune system. However, AIDS is always fatal. Most patients die within three years of diagnosis.

PREVENTION

No vaccine is currently available. The only strategy to combat the spread of infection is to prevent the transmission of the virus from one person to another.

PUBLIC EDUCATION

GENERAL PUBLIC

Education of the general public is an essential component of the program to control AIDS and AIDS virus (HIV) infections. Knowledge of how the disease is spread and how to avoid infection should reduce much of the concern which exists in the community. At the same time, accurate information should motivate all individuals to realistically reduce their own risk of acquiring or transmitting this infection.

People infected with the virus may seem completely healthy and may not even know they have it. Although most persons in North America who are known to be infected are in groups at risk, anyone who is exposed can become infected. Therefore, it is prudent for everyone to take precautions to protect themselves from becoming infected. The following information and advice is appropriate for the general public:

- Infection through sexual contact can be avoided by abstaining from sexual activity. Sexually active persons can avoid the AIDS virus (HIV) infection by establishing a mutually exclusive relationship with an uninfected partner.

- Individuals who are sexually active should not have sex with many different people. The more partners one has, the greater the chances of having sex with an infected person.

- The use of condoms is strongly encouraged if there is any possibility that a sex partner has been exposed to or is infected with AIDS virus (HIV). A history of intravenous drug-use or of many sex partners increases the chance that a person may have been infected.

- Sharing needles and syringes should be avoided.

- Anal intercourse should be avoided. It is important to use a condom if one does have anal intercourse.

SCHOOLS

School boards and public health offices are encouraged to develop education programs to inform children, parents, and teachers about AIDS and AIDS virus (HIV) infections. Education about risk factors and risk reduction methods should be factual and non-judgmental.

SCHOOL AND COLLEGE AGED POPULATIONS

Education to these students should emphasize:

- One can virtually <u>eliminate</u> the risk of AIDS and AIDS virus (HIV) infections by saying no to sex and drugs.

- One can <u>reduce</u> the risk of AIDS by practicing responsible sexual behavior with a mutually exclusive partner and avoiding risk activities.

GROUPS AT RISK AND RISK ACTIVITIES

Persons in risk groups and persons who engage in risk activities should be informed about AIDS and AIDS virus (HIV) infections so they can take precautions to minimize their chances of acquiring or transmitting the infection.

The following advice is particularly appropriate for persons who are in known risk groups or who engage in risk activities:

- Use condoms during sexual activity. The proper use of condoms may prevent infection with the virus carried in semen and vaginal fluid.

- Do not have anal intercourse. It can cause sores or cuts in the rectum and the virus may get into the bloodstream through these breaks. If you do have anal intercourse, use a condom.

- Do not have oral sex if you have open sores or cuts in the mouth.

- Do not allow semen, blood, urine or feces to enter the body of a sexual partner.

- Infected women should use a reliable method of contraception to avoid pregnancy.

- Never share needles and syringes with anyone.

- Do not donate blood, organs or sperm.

THE WORKPLACE

It is essential that all individuals be knowledgeable about basic infection control practices and be encouraged to follow them. An educational effort directed to staff in all workplaces is an important aspect of preventing transmission of infections and reducing anxiety and misunderstanding about the infection. Although educational initiatives need to address communicable diseases in general, specific emphasis should be directed at AIDS and AIDS virus (HIV) infections. The goal of this education is to combat fear that is based on misinformation or lack of information and to minimize the risk of transmission of AIDS virus (HIV) by promoting good health practices. These include routine use of infection control precautions and eliminating risk behaviors. Staff also need to be provided with information regarding the signs and symptoms of AIDS virus (HIV) infections, the methods of transmission of the virus and preventive measures. This information should be presented in terms that are easily understood and should include literature in foreign languages if required.

GUIDELINES FOR FUNERAL DIRECTORS

These recommendations have been developed to provide guidance to funeral directors who provide mortuary care to persons who have died of AIDS. These guidelines, based on current knowledge of transmission of AIDS virus (HIV) infection, describe infection control procedures to protect and ensure occupational safety during arterial embalming and the preparation and restoration processes.

Occupational exposure to contaminated blood and body fluids is most likely to result from an accidental prick with a needle, a cut from a scalpel blade, other sharp instrument or a ragged bone end.

RECOMMENDATIONS

PART A: Transfer of Deceased from Place of Death

1. Persons who have open or healing wounds, or skin infections should not be charged with transfer of the body. If such persons are responsible for the transfer, all open lesions must be adequately covered.

2. Gowns, waterproof aprons, and double gloves should be worn. Mask, cap and goggles should be worn in situations where blood/body fluids may splatter.

3. The body of the deceased should be clearly identified as "AIDS virus (HIV)- infected"; identification should remain with the body.

4. The body should be wrapped in a shroud and placed in an impervious body bag for transport. The body bag should not be opened in transit.

5. If death has occurred at home, the body should be checked for intravenous lines, catheters and colostomy bags. Extreme care should be exercised to avoid accidental cuts and splashes when shrouding and encasing the body.

6. Blood and body fluid spills should be wiped up immediately with a bleach solution. (See Glossary, page 19.)

PART B: Preparation for Embalming

1. Arrangements should be made to handle the usual office procedures during the embalming, preparation and restoration processes.

2. Persons who have open or healing wounds, or a skin infection should not embalm or assist in the embalming and restoration processes. Such persons, however, should not be restricted unduly in other aspects of mortuary care.

3. A "circulating assistant" should be "on call" to provide assistance if necessary.

4. The embalming area should be cleared of unnecessary objects and equipment.

5. Instruments should be set out to be readily accessible.

6. Individual items including eye caps and trocar buttons, should be removed from their bulk packages and placed as close as possible to the work area.

7. A sufficient number of puncture-resistant containers should be readily available for disposal of sharp instruments.

8. Garbage bins should be lined with double plastic bags for disposal of waste material and located within the work area.

9. The amount of cosmetics required should be placed on a paper towel or piece of wax paper and set aside for the restoration process.

10. A pail or washbasin of a bleach solution (See Glossary, page 19) should be freshly prepared and placed as close as possible to the work area. This solution should be used to disinfect all potentially

contaminated objects and surfaces during and after preparation. Any leftover solution should be discarded and not stored overnight. If a sodium hypochlorite solution other than household bleach is used, the ratio of water should be adjusted to yield a final concentration of 0.5% sodium hypochlorite.

11. A porcelain, enamel or stainless steel bucket should be placed immediately beneath the drainage hose of the embalming table. One gallon of undiluted sodium hypochlorite solution (a concentration of 5.25%) should be added to the container before starting the embalming process.

12. All persons involved in the embalming process should be assigned specific tasks before proceeding. Suturing should be done by one person, and care should be taken in handling the suture cord and needle.

13. The preparation room should be properly ventilated to avoid formation of chloromethyl ether which results from a combination of formaldehyde and sodium hypochlorite.

14. The casket should be prepared to receive the body immediately upon completion of the restoration process. It should be located in close proximity to the preparation room. Head, arm and foot rests should be encased in plastic and tightly sealed.

PART C: Embalming

1. Extreme care should be taken to prevent accidental cuts or lacerations by possibly contaminated instruments or bone ends, and accidental splashing of contaminated blood/body fluids. All body fluids and tissue should be considered potentially contaminated.

2. Work should be confined to the smallest possible area; personnel should not walk unnecessarily about the room.

3. Gloves, protective eyewear, masks, caps and gowns or disposable jumpsuits with hoods, waterproof aprons and waterproof shoe coverings should be worn by all persons.

4. Two pairs of disposable gloves, intact and unpunctured, should be worn. If the gloves leak, or become torn or punctured (without laceration or abrasion to the hand), they should be removed, hands washed thoroughly and new gloves used.

5. When transferring the body from the stretcher to the embalming table, care should be taken to exert minimal pressure on the abdomen and thorax to prevent expulsion of waste material from nasal, oral and genito-urinary orifices.

6. The body should be unwrapped slowly and the bag carefully lowered into the disposal bin to avoid splattering of blood and/or body fluid.

7. The body should be disinfected with the sodium hypochlorite solution, then washed with a germicidal soap and rinsed thoroughly. Water pressure should be kept low to prevent splashing.

8. Open sores or lesions or any area that could ooze body fluid should be treated with surface pack or embalming gel and covered. All orifices should be packed with cotton saturated with sodium hypochlorite solution.

9. Disposable shaving equipment should be used.

10. Needles, scalpel blades and other sharp instruments should be placed in puncture-resistant containers located where they are readily accessible.

11. If a needle injector gun is used, the face should be covered with a towel soaked in sodium hypochlorite solution.

12. In the case of an autopsied body, rib ends should be covered with a towel and the viscera bag should be removed by wrapping it in a second plastic bag. If the viscera are to remain in the bag and not dry-packed, excess fluid should be removed from the bag by twisting the top and inverting it over the draining bucket.

13. If purging of nasal and oral orifices occurs, the packing should be removed and the orifices swabbed with an approved bactericide or sodium hypochlorite solution. The orifices should be repacked and the face covered with a cloth saturated with sodium hypochlorite solution.

14. An electric aspirator should be used to aspirate body fluids. The draining port should be covered to prevent splash back.

15. Blood, body fluid and contents removed by aspiration should be treated with undiluted sodium hypochlorite solution (a concentration of 5.25%) for at least 30 minutes before disposal directly into the sanitary sewer (see Part B, No. 11).

16. Any blood or other body fluid spills should be saturated immediately with sodium hypochlorite solution and wiped clean with disposable absorbent material such as paper towels.

17. Any person who suffers a cut or needle puncture should remove himself immediately from the embalming process. The wound should be encouraged to bleed freely for a few minutes, washed with soap and water, and treated with a fresh solution of sodium hypochlorite. A bandage should then be applied.

18. Eyes or skin splashed with blood or body fluids should be washed immediately in running water.

19. Any blood or body fluids which accidentally get in the mouth should be spit out and the mouth should be rinsed with water.

20. Any personnel who sustain a needle puncture or mucous membrane exposure to blood or other body fluids should be evaluated clinically and serologically for evidence of AIDS virus (HIV) infection as soon as possible after exposure. (See Management of Possible Workplace Exposure to AIDS virus (HIV), page 17.)

21. After embalming has been completed, the body should be washed in sodium hypochlorite solution, rinsed and towel-dried. Disposable absorbent material such as paper or prep towels should be used to dry the body.

22. Incisions, sores and lesions should be sealed with incision glue.

23. The body should be wrapped in plastic or clothed in plastic overalls prior to dressing.

24. Rubber or wooden-handled instruments should not be used for applying cosmetics. However, if such instruments are used they should be discarded after use. Any unused cosmetics should be discarded.

25. Protective clothing should be worn during dressing and cosmetic procedures.

26. The two persons who casket the body should wear protective clothing.

PART D: Clean-up and Disposal

1. All instruments and the embalming table should be considered contaminated and potentially infectious. All working surfaces and instruments of embalming and restoration should be disinfected with sodium hypochlorite solution. The embalming table, floors, walls, and embalming machine should be then washed in hot soapy water. Instruments should be autoclaved if possible.

2. All disposable material (protective clothing, towels, cloths, drainage hoses) should be placed in tightly-secured double plastic bags and tagged for incineration. They should not be disposed of with

regular garbage. Special arrangements for incineration should be made either through a local hospital or a private disposal company.

3. Personnel should wash their hands with an appropriate germicide on three occasions: 1) following completion of the restoration procedures, 2) after removal of protective clothing, and 3) before leaving the preparation room.

MANAGEMENT OF POSSIBLE WORKPLACE EXPOSURE TO AIDS VIRUS (HIV)

If a worker or a patient/client has a needle puncture or cut to the skin or mucous membrane (e.g., splash to the eye or mouth) exposure to blood or other body fluids, the source person should be assessed clinically and epidemiologically by a physician to determine the possibility of AIDS virus (HIV) infection.

If such infection may exist, the source person should be informed of the incident and requested to consent to blood testing for evidence of AIDS virus infection. If the source patient is found to be infected or declines testing, the person who was exposed to possible infection should be evaluated clinically and serologically for evidence of AIDS virus (HIV) infection as soon as possible. If the exposed person's first blood test is negative, he or she should be retested after a period of 6 weeks and again at 3, 6 and 12 month intervals to determine if transmission has occurred. If the source person continues to show a negative test and has no evidence of AIDS virus (HIV) infection, no further follow-up is necessary.

GLOSSARY

AIDS	Acquired Immunodeficiency Syndrome.
ARC	AIDS-related Complex.
HIV	Human Immunodeficiency Virus: the agent which causes AIDS; formerly known as Human T-Lymphotropic Virus III/ Lymphadenopathy Associated Virus (HTLV-III /LAV).
HCW	Health Care Worker
HBV	Hepatitis B Virus
PSW	Personal Service Worker
Antiseptic	a chemical having the ability to destroy potentially infective micro-organisms and which can be used safely on living tissues.
Bleach Solution	the most commonly recommended disinfectant in these guidelines is bleach solution (i.e. a 0.5% sodium hypochlorite solution which can be prepared by mixing household chlorine bleach - (5.25%) one part bleach to nine parts water). It must be prepared fresh daily. This solution is corrosive and must be used with caution on metal surfaces.
Cleaning	Scrubbing and washing, with hot water, soap or detergent to remove infectious agents and/or organic matter from surfaces.
Disinfection	the use of germicidal chemical agents to destroy infectious agents.
Sterilization	the use of a physical process or chemical agents to eliminate all viable microorganisms. Steam and gas autoclaving and dry heat ovens are the most common methods.

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